

ABSTRACT OF THE DISCLOSURE

[0082] A dynamic clamp 200 selectively clamps overshoot on a signal line 100 when overshoot is likely, while not clamping the received signal at times when overshoot is not likely encountered. A Driver Disable signal 102 disables the output of an output driver 110 so that it presents a high impedance to the signal line 100. An activation element 310 asserts a Clamp Enable signal 311, for example, in response to a transition of the received signal that occurs, for example, during a period in which a corresponding Driver Disable signal 102 is asserted. A deactivation element 320 asserts a Clamp Disable signal 321, for example, a predetermined deactivation delay period after the Clamp Enable signal 311 is asserted. A clamping portion 330 selectively clamps the received signal 100 beginning with the assertion of the Clamp Enable signal and ending with the assertion of the Clamp Disable signal. The dynamic clamp 200 is especially suitable for use in backplane environments, in which signals on path 100 originating from a driver not located on the same card 130 as the dynamic clamp would have overshoot, ringing, and other undesirable transmission line characteristics. Additional features of the clamp ensure that other circuit specifications (such as, for example, overvoltage tolerance and I_{off} current specifications) are not compromised.